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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,838	01/17/2002	Jun Ishii	393032030500	1876

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MORRISON & FOERSTER, LLP
555 WEST FIFTH STREET
SUITE 3500
LOS ANGELES, CA 90013-1024

EXAMINER

FLETCHER, MARLON T

ART UNIT	PAPER NUMBER
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2837

MAIL DATE	DELIVERY MODE
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04/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/052,838

Applicant(s)

ISHII ET AL.

Examiner

Marlon T. Fletcher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1,2,4-12,14-18,20-28,30-34,36-44 and 46-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 7,8,10,11,23,24,26,27,39,40,42 and 43 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,9,12,14-18,20,21,25,28,30-34,36,37,41,44 and 46-48 is/are rejected.
- 7) ☐ Claim(s) 22 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 12, 14, 17, 18, 28, 30, 33, and 34, are rejected under 35 U.S.C. 102(e) as being anticipated by Murata et al. (2002/0012437).

Murata discloses a discriminator (14) for discriminating a sort of modulation technique to produce an information carrying signal (figure 1), comprising an analyzer supplied with said information carrying signal, and evaluating at least one feature of said information carrying signal found in a waveform of said information carrying signal (column 3, paragraph 45); and a judging unit connected to said analyzer, and investigating the evaluation supplied from said analyzer to see what sort of modulation technique exhibits said at least one feature so as to determine the sort of modulation technique employed in said information carrying signal, wherein said at least one feature is a similarity of said waveform to plural reference waveforms (pages 1-2; paragraph 17; page 2, paragraph 32; and page 3; paragraphs 39, 40, and 45).

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Murata discloses the discriminator, in which said analyzer further evaluates another feature of said information carrying signal found in said waveform of said information carrying signal, and said judging unit determines said sort of modulation technique on the basis of the evaluation of said at least one feature and another feature (frequency) (page 3, paragraph 41).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6, 15, 16, 20, 21, 31, 32, 36, 37, 44, and 46-48 rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. in view of Yun (5,298,674).

Yun discloses a discriminator (figure 2) for discriminating a sort of modulation technique to produce an information carrying signal comprising: an analyzer supplied with said information carrying signal, and evaluating at least one feature of said information carrying signal found in a waveform of said information carrying signal (column 4, Lines 8-18); and a judging unit connected to said analyzer, and investigating the evaluation supplied from said analyzer to see what sort of modulation technique is to exhibit said at least one feature so as to determine the sort of modulation technique employed in said information carrying signal (column 4, Lines 18-23). Yun discloses the discriminator in which said analyzer further evaluates another feature of said information

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carrying signal found in said waveform of said information carrying signal, and said judging unit determines said sort of modulation technique on the basis of the evaluation to said at least one feature and said another feature (column 4, Lines 24-33). Yun discloses the discriminator, in which said at Least one feature is a similarity of said waveform to plural reference waveforms (column 4, Lines 24-26). Yun discloses the discriminator, in which said at least one feature and said another feature are a similarity of waveform to plural reference waveforms and peak-to-peak intervals found in said waveform (column 4, lines 24-26 and lines 64-65). Yun discloses the discriminator, in which said analyzer includes a wave discriminator comparing said waveform with a predetermined amplitude range to see whether or not said information carrying signal is fallen within said predetermined amplitude range so as to determine a first time period in which said information carrying signal is within said predetermined amplitude range and a second time period in which said information carrying signal is out of said predetermined amplitude range, and determine said similarity on the basis of a ratio between said first time period and said second time period (column 5, lines 28-48). Yun discloses the discriminator, in which said wave discriminator includes a rectifier supplied with said information carrying signal and making said information carrying signal vary the amplitude in one of the positive and negative ranges, an averaging circuit connected to said rectifier for determining an average value of said amplitude, a comparator having two thresholds defining said predetermined amplitude range and comparing said information carrying signal with said two thresholds to produce an output signal representative of said first time period and said second time period, and a signal

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generator connected to said comparator and producing an output signal representative of said similarity (column 5, line 49 through column 6, line 27). Yun discloses the discriminator in which said information carrying signal is produced from an analog signal representative of sound said judging unit further determines that said information carrying signal was produced from said analog signal in the absence of the features unique to plural sorts of modulation techniques (column 1, lines 12-19 and claim 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings Yun with the teachings of Murata et al., because the teachings provide more views of signal comparison and analysis, wherein both provide teachings of discriminating and producing a desired signal.

6. Claims 9, 25, and 41, are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. in view of Choi et al. (5,726,373).

Murata does not disclose the use of music data codes.

However, Choi et al. disclose a discriminating for discriminating a sort of modulation technique to produce an information carrying signal, wherein a judging determines a modulation technique, wherein at least one feature is a similarity of the waveform to plural reference waveforms as discussed in column 16, line 30 through column 17, line 55. Choi et al. further disclose the discriminator in which said information carrying signal is produced from a data stream containing music data codes and meaningless codes (figures 1-1 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Choi et al. with the apparatus of Murata et al., because Choi et al. enhances the teachings of Murata et al., providing the transmission of MIDI or meta data, wherein codes can be used to reproduce the musical transmission and further comprise a comparison or judging of the waveform against reference waveforms for making a determination of the modulation technique.

Allowable Subject Matter

7. Claims 7, 8, 10, 11, 23, 24, 26, 27, 39, 40, 42, and 43, are allowed.
8. Claims 22 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 4-12, 14-18, 20-28, 30-34, 36-44, and 46-48, have been considered but are moot in view of the new ground(s) of rejection.

The finality has been withdrawn. After review of the prior art applied in the final office action, the examiner agreed with the attorney with respect to the lack of determining a modulation type or technique. Although the references are very much related in operation, the references provided discriminating signals based on types different modulation. However, the newly submitted reference, as discussed above,

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does provide discriminating based on modulation techniques. Although, the prior rejection does not provide every element, the references in combination with the newly submitted reference provide claim elements as provided in the rejection above. Other claims are allowed as discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T. Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 571-272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MTF
04/16/2007


Marlon Fletcher
Primary Examiner